

REMARKS

I. Summary of the Office Action and this Reply

Claims 1-36 are pending in the application. The Examiner has rejected claims 1-9, 14-15, and 33-36 under 35 U.S.C. § 102(e), asserting that such claims are anticipated by U.S. Patent No. 6,115,741 to Domenikos et al. ("Domenikos"). The Examiner has rejected claims 10, 16-19 and 22 under 35 U.S.C. § 102(e), asserting that such claims are anticipated by U.S. Patent No. 6,134,588 to Guenthner et al. ("Guenthner"). The Examiner has rejected claims 11-13, 20-21, and 23-32 under 35 U.S.C. § 103(a), asserting that those claims are obvious in view of Guenthner.

The rejections are traversed.

II. Discussion of the Present Invention and Cited References

The Present Invention

The present invention is directed to a computer implemented method and apparatus for retrieving files in a network using logical references corresponding to physical references. A traditional electronic address, e.g. URL, is a "physical reference," in that it provides information required for identifying, locating, retrieving and/or transmitting a desired file, e.g., by identifying a file's location on a server identified in the electronic address. However, such file location information may become outdated and therefore result in a broken link or an error message that the requested file is unavailable at the electronic address.

The logical reference is unlike a physical reference in that it does not in and of itself provide sufficient information for identifying, locating, retrieving and/or transmitting a desired file. Rather, such a logical reference is simply a placeholder that can be matched with a conventional electronic address of a file. The logical reference is associated with a logical point of access, e.g. a hyperlink, selectable by a user. See specification, page 7, lines 7-13; page 10, line 23 - page 11, line 2. Accordingly, the user may select hyperlinks using a Web browser, as generally known in the art, but those links are logical points of access because they are not directly associated with an electronic address for the linked file.

For example, an HTML file may be a parent file interpretable by a Web browser to display a hyperlink (logical point of access) to a desired file. The hyperlink is associated with a logical reference stored in the parent HTML file instead of the traditional electronic address. Also stored in the parent file are one or more traditional electronic addresses corresponding to the logical reference. Such traditional electronic addresses are inserted into the parent file by a server when the parent file is requested by a client before the parent file is transmitted to the requesting client. Inserting these addresses into the parent file at or near the time of request for the parent file helps ensure that the electronic addresses are up-to-date. When a hyperlink is selected by a user to retrieve a desired file, the corresponding logical reference of the parent file is resolved into a corresponding traditional electronic address for the desired file by reference to the electronic address(es) stored in the parent file. An electronic address so identified is then used to request the desired file, which typically involves resolution by a domain name server (DNS)

to identify a corresponding numerical IP address, etc. Specification, page 11, line 3 - page 12, line 22.

The list of multiple electronic addresses provides alternative addresses in the event a single electronic address is out-of-date (e.g. resulting in a broken link) and/or provides alternative addresses for selecting a best (e.g. closest, fastest) server capable of providing the best response.

U.S. Patent No. 6,115,741 to Domenikos et al.

Domenikos discloses a system and method for executing application programs from a memory device linked to a server. In other words, Domenikos allows a website administrator to provide remote clients with access to application programs stored on a web server. See column 9, lines 22-25. An application information file is generated that contains information necessary for running the remote application on the client. Column 9, line 61 - column 10, line 12.

When a client requests execution of an application program, the system generates an array of file pointers 60 at the server (see Figure 4) and an array of remote file pointers 24 at the client 12 (see Figure 4). Column 14, lines 1-9. The array of file pointers 60 represents the locations of the disk 46 at the server 14 that contain the executable code. Column 15, lines 58-60; Figure 4. A connection element 20 at the client 12 opens a file having a copy of the file pointers 60 and generates the array of remote file pointers 24. Each remote file pointer 24 is a handle to a physical location on the disk 46 on the server 14 that can be employed by the client 12 as an access point to the physical location of the disk 46 that

contains the executable code for the application program. Column 15, line 66 - column 16, line 6; column 16, lines 8-20.

U.S. Patent No. 6,134,588 to Guenthner et al.

Guenthner discloses a method of network communication for providing high availability web browser access to servers. Guenthner discloses that when a browser issues an IP request to a name server such as a domain name service (DNS), the hostname portion of a conventional URL is matched to a list of one or more IP addresses that are returned to the web client upon an http request, as well known in the art. Each IP address identifies a server that hosts the content that the user of the web client has requested. Guenthner asserts that, in the prior art, the list included only one address and most browser products used or expected to use only one such address. According to Guenthner, a list of one or more IP addresses received from a domain name server during resolution of a conventional physical electronic address (e.g. URL) is used to build a hostname address list (HAL) that is then used to control how the particular IP addresses therein are managed by the browser. Column 4, lines 30-50.

Upon a given web browser event, such as activation of a link displayed in a web page, a routine gets the hostname from a conventional electronic address/URL. See steps 70 and 72, Figure 5; column 6, lines 8-17. Accordingly, when a DNS name server returns a list of current IP addresses for a given host name and/or URL, the list is used to identify a set of servers, rather than one, that may be used to satisfy the user's request. Column 8, lines 18-24. Thus, when the user at a client

machine activates a link to a URL, the browser at the client machine receives a list of IP addresses from the DNS name server that may be associated with servers servicing that URL. Column 8, lines 34-37.

Files are then requested from one or more IP addresses in the HAL.

III. Response to 102 Rejections

A rejection under 35 U.S.C. § 102 is proper only if each and every element of the claim is found in a single prior art reference. MPEP § 2131.

The Examiner has rejected independent claims 1, 14, 33 and 36 under 35 U.S.C. § 102(e) as anticipated by Domenikos. Contrary to the Examiner's assertion in paragraph 4 of the Action, Domenikos provides no disclosure whatsoever of a logical reference uniquely identifying a file independently of an electronic address at which the file is located, as recited in claims 1 and 14. Claims 33 and 36 have a similar recitation, expressly reciting that the logical reference of the parent file identifies the desired file independently of a URL. The logical reference is unlike a physical reference or conventional URL/electronic address in that it does not in and of itself provide sufficient information for identifying, locating, retrieving and/or transmitting a desired file. Rather, such a logical reference is simply a placeholder for an electronic address of a file. Domenikos merely discloses selection of links associated with conventional electronic addresses and/or use of conventional electronic addresses, which are physical in nature because they contain sufficient information for identifying, locating, retrieving and/or transmitting a desired file, which typically involves resolution by a DNS name service as well known in the art. A

logical reference is not analogous to a URL or other electronic address used by Domenikos.

Domenikos teaches fulfilling a request for a particular file stored at a server using a server array of file pointers 60 and an array of remote file pointers 24. However, Domenikos clearly indicates that these file pointers are not logical references, stating that the "array of file pointers 60 . . . represent the locations of the disk 46 that contain the executable code" and that "each remote file pointer 24 . . . is a handle . . . to a physical location on the mounted disk 46 [at the server] that can be employed by the client 12 as access points to the physical location of the disk 46 that contains the executable code." Col. 15, lines 57-60; col 16, lines 1-6. For example, a remote pointer may have the form www.epicon.com:usr\local\store\exlander.exe, where www.epicon.com is a server address representative of an IP address, usr represents the server's disk 46 and \local\store\exlander.exe represents the pathname signal to the physical location on the disk 46. Column 16, lines 9-20. Domenikos provides no disclosure whatsoever of any use of logical references, which do not indicate a physical location.

For at least these reasons, reconsideration and withdrawal of the rejection of claims 1-9, 14-15, and 33-36 are respectfully requested.

The Examiner has rejected independent claims 10, 16-19 and 22 under 35 U.S.C. § 102(e) as anticipated by Guenther. Contrary to the Examiner's assertion in paragraph 5 of the Action, Guenther provides no disclosure whatsoever of a logical reference uniquely identifying a file independently of an electronic address at which the file is located. While Guenther discloses that a list of IP addresses may

be transmitted to a client in response to selection of a link, such IP addresses are physical in nature, and are returned to the client upon a request derived from a URL, which is physical in nature. More specifically, the hostname submitted to the name server is extracted from a conventional URL. Col. 4, lines 20-42; col. 6, lines 9-30.

Furthermore, there is no disclosure of modifying a file containing a logical reference, at a server, to insert a list of physical references corresponding to the logical reference, as recited in claim 10, so that a single file includes both a logical reference and corresponding physical references. A HAL as disclosed by Guenther includes only a list of IP addresses. Guenther provides no disclosure of a logical reference.

For at least these reasons, reconsideration and withdrawal of the rejection of claims 10, 16-19, and 22 are respectfully requested.

IV. Response to 103 Rejections

A section 103 rejection is proper only if all claim limitations are taught or suggested by the prior art. MPEP § 2143.03. Moreover, even if all elements are found in the cited art, there still must be motivation in the cited art to make the proposed combination.

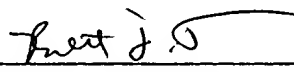
The Examiner has rejected claims 11-13, 20-21 and 23-32 under 35 U.S.C. § 103(a) as obvious in view of Guenther. These claims depend from claims believed to be patentable, and therefore are believed patentable for at least the reasons set forth above.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe claims 1-36 to be patentable and the application in condition for allowance. Applicants respectfully request issuance of a Notice of Allowance. If any issues remain, the undersigned request a telephone interview prior to the issuance of an action.

Respectfully submitted,

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